

Campus Sustainability Committee Meeting

November 8, 2019
2:00pm, SF 329

Agenda

- Introductions
- Sustainability Progress to Date
- Bayview Village Proposal - *time certain 2:15pm*
- STARS Analysis - *time certain 2:25pm*
- CAP-IT Report Out - *time certain 2:40pm*
- Zero Waste Task Force Report Out
- Discussion
 - Presidential Forum Priorities
 - New Member: Director of Parking & Transport Services or Designee
- Next Meeting

Sustainability: Progress to Date

- Sustainability Goals come from two guiding documents
 - STARS
 - Student presentation to follow
 - CAP
 - Established Implementation Framework
 - Identified Barriers to Implementation
 - Institutional Capacity (staffing)
 - Funding
 - Identified Priorities for Action
 - Solar IV
 - Green Revolving Fund
 - Progress AY 18-19 - meeting requirements:
 - Air Travel Offset Policy
 - ILOs taken into consideration in faculty RTP process
 - No new parking spaces created

Bayview Village Proposal

Sherman Lewis

Time certain: 2:15pm



stars[®]

Initial Benchmark Assessment

Prepared by:

Rahul Garg, Sustainability Ambassador

Ankur Bhagwat, Sustainability Ambassador

Jonathan Tonel, Climate Corps / AmeriCorps Fellow



STARS v2.1

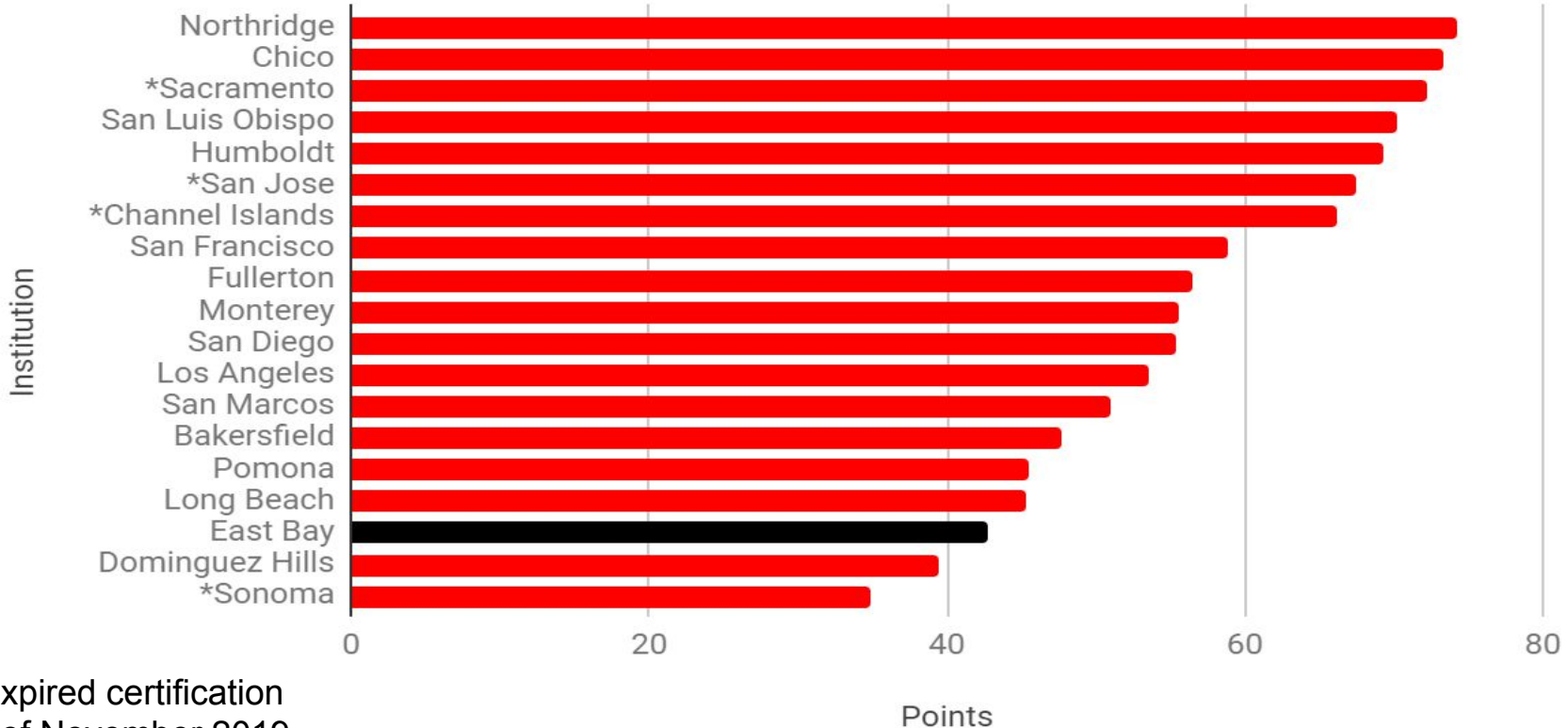
California State University, East Bay

Hayward, CA, US

Rating	Score	Liaison	Submission Date
Bronze	42.65	Jillian Buckholz	April 19, 2019

How CSUEB compares to other CSUs

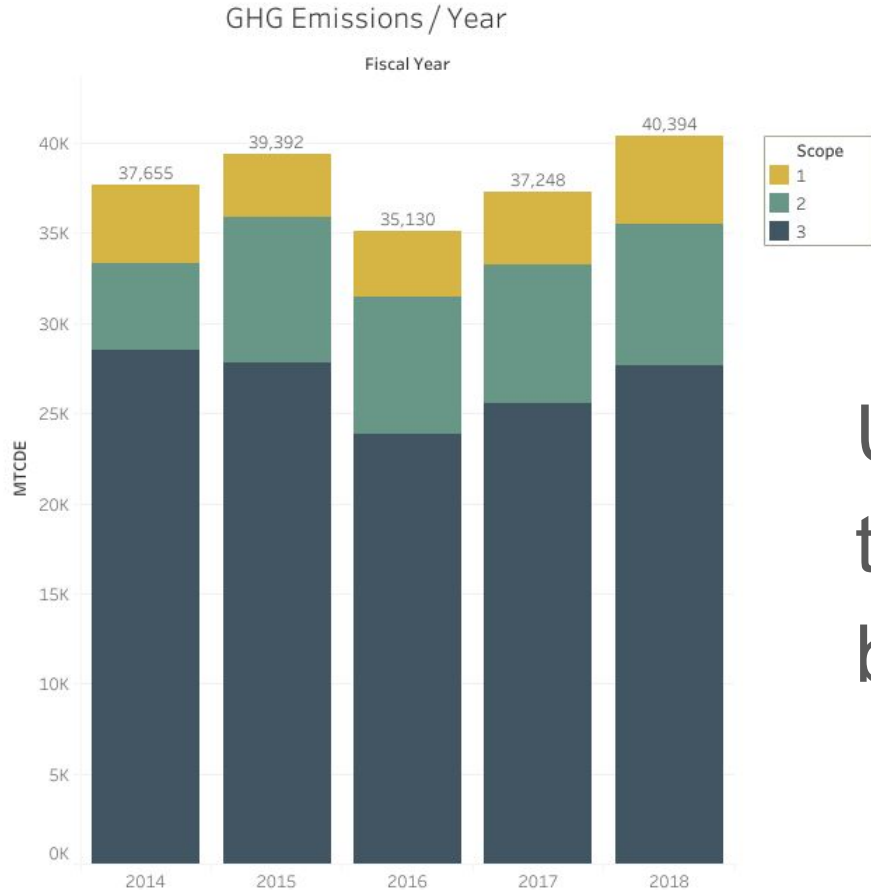
STARS Overall Points



* Expired certification as of November 2019

CSU East Bay's Greenhouse Gas (GHG) Emissions

Select a Fiscal Year from the dropdown menu for a detailed look into the University's emissions in Metric Tons of Carbon Dioxide Equivalent (MTCDE) by scope and source during that particular year.



Urgent Action is Needed
to get to Zero Emissions
by 2040.

ACADEMICS (AC)			
	AC 1	Academic Courses	34
	AC 2	Learning Outcomes*	8
	AC 3	Undergraduate Program*	3
Curriculum 40 points available	AC 4	Graduate Program*	3
	AC 5	Immersive Experience*	2
	AC 6	Sustainability Literacy Assessment	4
	AC 7	Incentives for Developing Courses	2
	AC 8	Campus as Living Laboratory*	4
Research 18 points available	AC 9	Research and Scholarship*	12
	AC 10	Support for Research*	4
	AC 11	Open Access to Research*	2
ENGAGEMENT (EN)			
	EN 1	Student Educators Program	4
	EN 2	Student Orientation*	2
	EN 3	Student Life	2
Campus Engagement 21 points available	EN 4	Outreach Materials and Publications	2
	EN 5	Outreach Campaign	4
	EN 6	Assessing Sustainability Culture	1
	EN 7	Employee Educators Program	3
	EN 8	Employee Orientation	1
	EN 9	Staff Professional Development	2
	EN 10	Community Partnerships	3
Public Engagement 20 points available	EN 11	Inter-Campus Collaboration	3
	EN 12	Continuing Education*	5
	EN 13	Community Service*	5
	EN 14	Participation in Public Policy	2
	EN 15	Employment Assessment*	2

OPERATIONS (OP)			
Air & Climate 11 points available	OP 1	Greenhouse Gas Emissions	10
	OP 2	Outdoor Air Quality	1
Buildings 8 points available	OP 3	Building Operations and Maintenance*	5
	OP 4	Building Design and Construction*	3
Energy 10 points available	OP 5	Building Energy Consumption	6
	OP 6	Clean and Renewable Energy	4
Food & Dining 8 points available	OP 7	Food and Beverage Purchasing*	6
	OP 8	Sustainable Dining*	2
Grounds 4 points available	OP 9	Landscape Management*	2

STARS 2.0 Technical Manual 18 Table of Credits

Purchasing 6 points available	OP 11	Sustainable Procurement	3
	OP 12	Electronics Purchasing	1
	OP 13	Cleaning and Janitorial Purchasing	1
	OP 14	Office Paper Purchasing	1
	OP 15	Campus Fleet*	1
Transportation 7 points available	OP 16	Student Commute Modal Split*	2
	OP 17	Employee Commute Modal Split	2
	OP 18	Support for Sustainable Transportation	2
Waste 10 points available	OP 19	Waste Minimization and Diversion	8
	OP 20	Construction and Demolition Waste Diversion*	1
	OP 21	Hazardous Waste Management	1
Water 6-8 points available	OP 22	Water Use	4-6
	OP 23	Rainwater Management	2

PLANNING & ADMINISTRATION (PA)			
Coordination & Planning 8 points available	PA 1	Sustainability Coordination	1
	PA 2	Sustainability Planning	4
	PA 3	Participatory Governance	3
	PA 4	Diversity and Equity Coordination	2
Diversity & Affordability 10 points available	PA 5	Assessing Diversity and Equity	1
	PA 6	Support for Underrepresented Groups	3
	PA 7	Affordability and Access	4
Investment & Finance 7 points available	PA 8	Committee on Investor Responsibility*	2
	PA 9	Sustainable Investment*	4
	PA 10	Investment Disclosure*	1
Wellbeing & Work 7 points available	PA 11	Employee Compensation	3
	PA 12	Assessing Employee Satisfaction	1
	PA 13	Wellness Program	1
	PA 14	Workplace Health and Safety	2
INNOVATION & LEADERSHIP (IN)			4 bonus points available
Exemplary Practice			0-5 each

OPERATIONS (OP)

Air & Climate

11 points available

OP 1 Greenhouse Gas Emissions

OP 2 Outdoor Air Quality

Buildings

8 points available

OP 3 Building Operations and Maintenance*

OP 4 Building Design and Construction*

Energy

10 points available

OP 5 Building Energy Consumption

OP 6 Clean and Renewable Energy

Food & Dining

8 points available

OP 7 Food and Beverage Purchasing*

OP 8 Sustainable Dining*

Grounds

3-4 points available

OP 9 Landscape Management*

OP 10 Biodiversity*

Purchasing

6 points available

OP 11 Sustainable Procurement

OP 12 Electronics Purchasing

OP 13 Cleaning and Janitorial Purchasing

OP 14 Office Paper Purchasing

OP 15 Campus Fleet*

Transportation

7 points available

OP 16 Student Commute Modal Split*

OP 17 Employee Commute Modal Split

OP 18 Support for Sustainable Transportation

Waste

10 points available

OP 19 Waste Minimization and Diversion

OP 20 Construction and Demolition Waste Diversion*

OP 21 Hazardous Waste Management

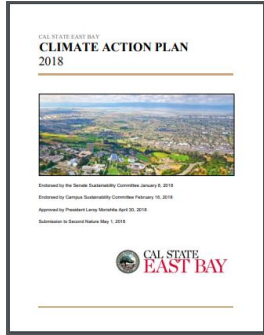
Water

6-8 points available

OP 22 Water Use

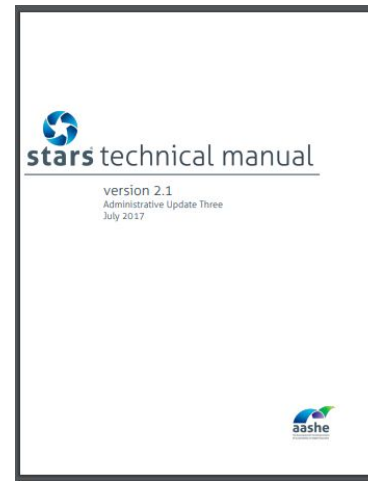
OP 23 Rainwater Management

CAP & STARS



BLDG1	Design all new buildings to be Zero Net Energy (ZNE) starting immediately
BLDG2	No new natural-gas consuming equipment for space and water conditioning starting in 2022
BLDG3	Replace space heating, water heating, and cooking equipment with ultra efficient fossil-fuel-free technologies
BLDG4	Maximize PV production on all new buildings
TRAN9	All new-to-campus fleet vehicles must be electric, bio-fueled, or other RE-powered
TRAN10	No personal vehicle/parking passes for first year residence hall students
TRAN2	Enhance and encourage the use of alternative transportation modes
TRAN3	Pursue subsidized transit passes for students, staff, and faculty
TRAN4	Encourage the use of alternative transportation modes with faculty and staff by implementing an Employee Cash Out Program
TRAN5	Offset carbon emissions from all study abroad and international travel by 2022

TRAN6	All state-funded travel will be carbon neutral or 100% offset by 2022
TRAN7	No net increase in the number of parking spaces for fossil-fueled vehicles
TRAN8	Maintain at least 50% greater EV charging station capacity (relative to total number of parking spaces) than the statewide EV vehicle proportion
ENG6	Institute on-going energy management training of building technicians
ENG7	The campus information technology team will maintain all campus-owned computers related technology to always operate in energy saver mode
ENG8	Research emerging energy technologies for carbon savings
ENG9	Investigate the potential for Cal State East Bay wind-power facilities
ENG1	Develop and maintain an operation and maintenance plan to reduce energy use, maximize equipment efficiency, and most effectively utilize deferred maintenance funds
ENG2	Install 680 kW of new PV, or other renewable energy capacity annually
ENG3	Prioritize PV installations to: displace all Concord Campus Energy use (~630kW), on Hayward Campus parking lots (~8MW long term)
ENG4	Install PV system of a size necessary to displace annual electricity use of the Concord Campus
ENG5	Prioritize purchase of high renewable powercontent, low unspecified power content, grid power



OP 1	Greenhouse Gas Emissions
OP 3	Building Operations and Maintenance*
OP 4	Building Design and Construction*
OP 5	Building Energy Consumption
OP 6	Clean and Renewable Energy
OP 11	Sustainable Procurement
OP 15	Campus Fleet*
OP 16	Student Commute Modal Split*
OP 17	Employee Commute Modal Split
OP 18	Support for Sustainable Transportation

Boxplot Example

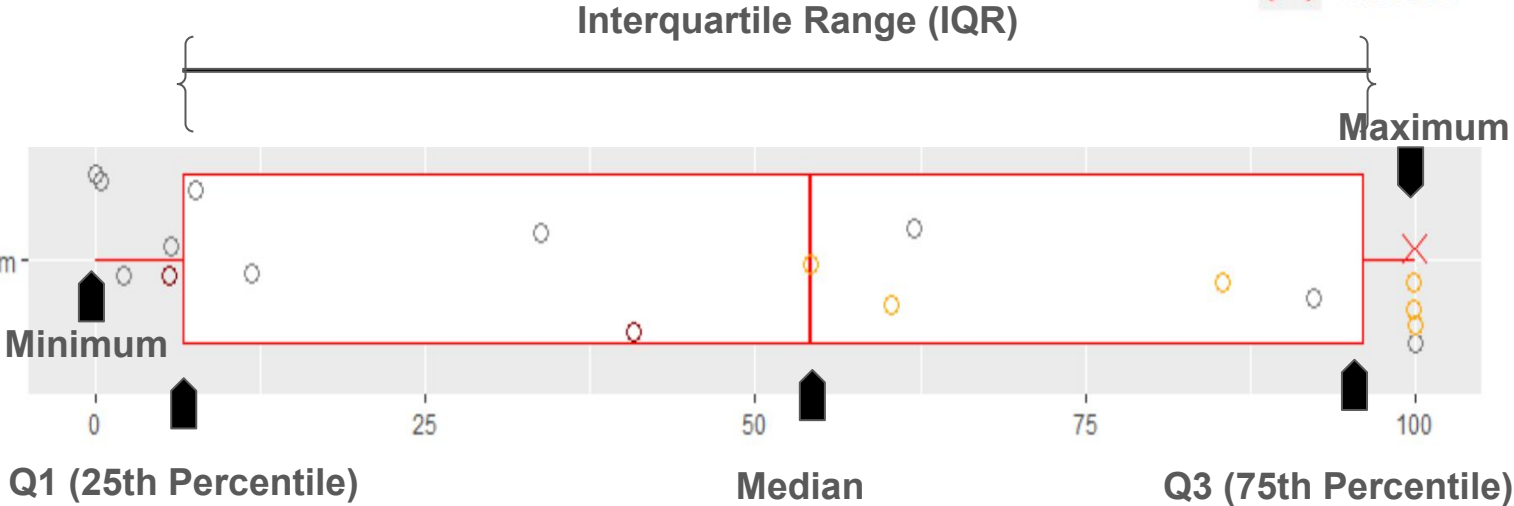
STARS Rating

- bronze
- silver
- gold
- × CSUEB

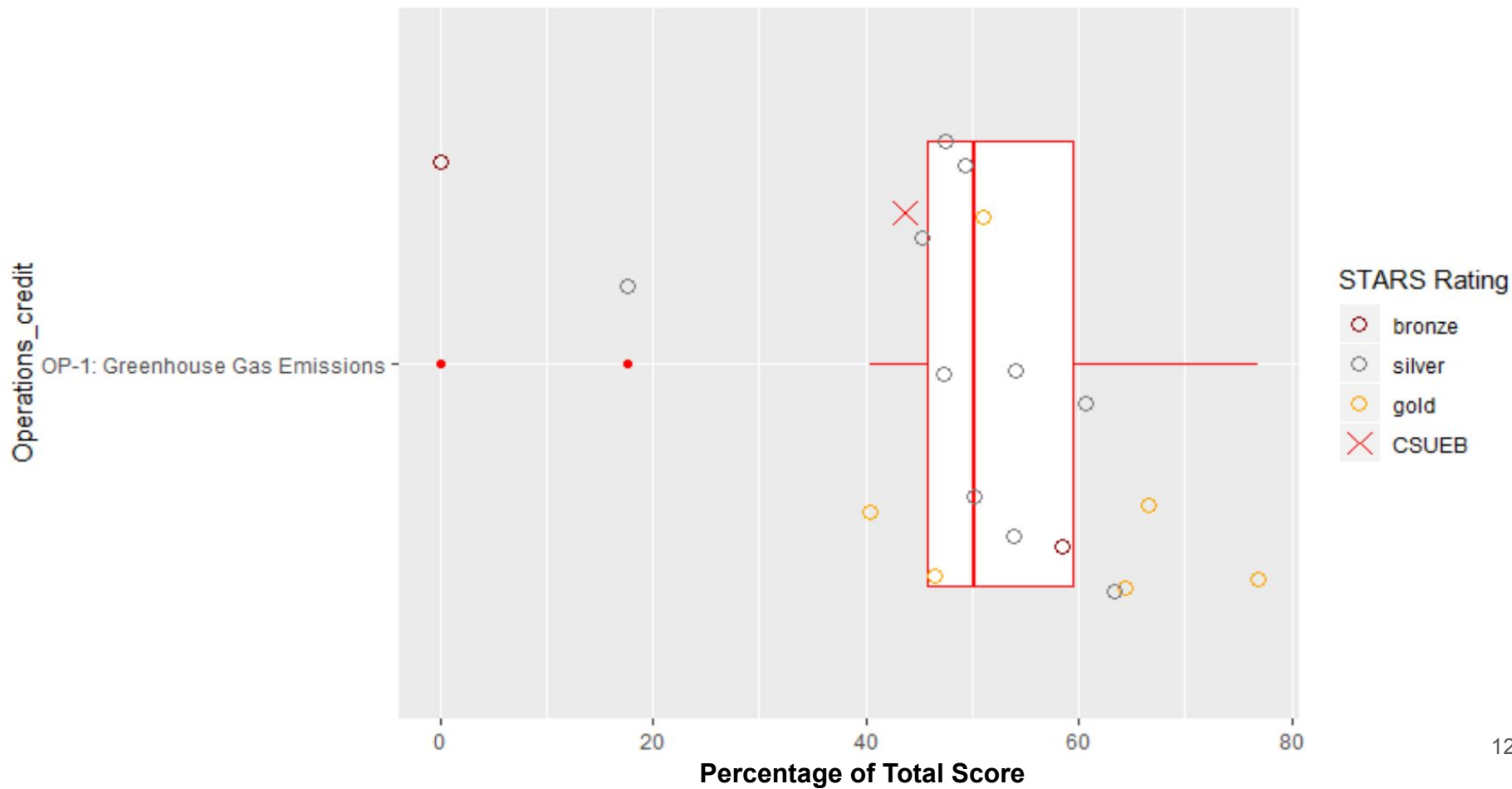
STARS Credit



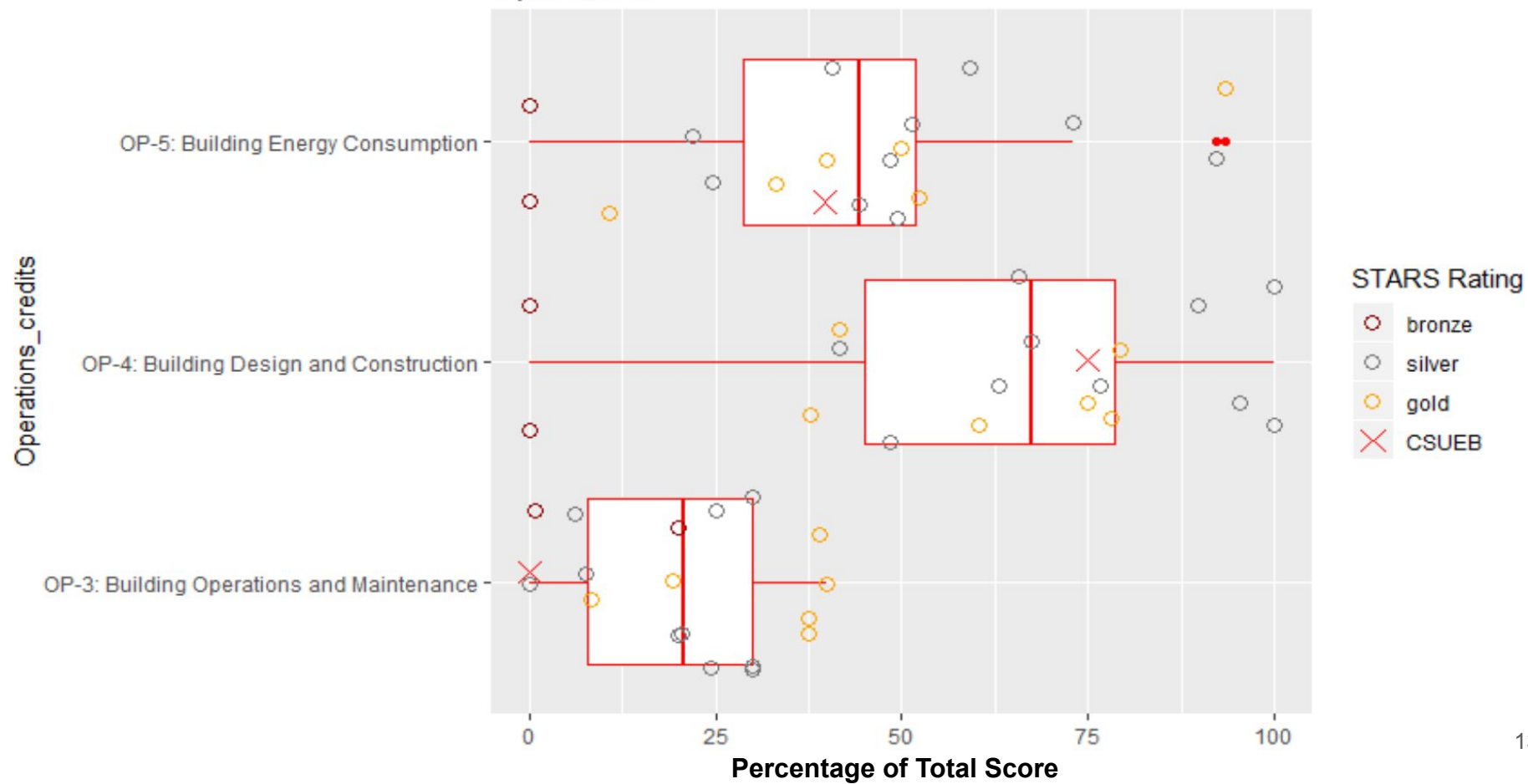
EN-1: Student Educators Program



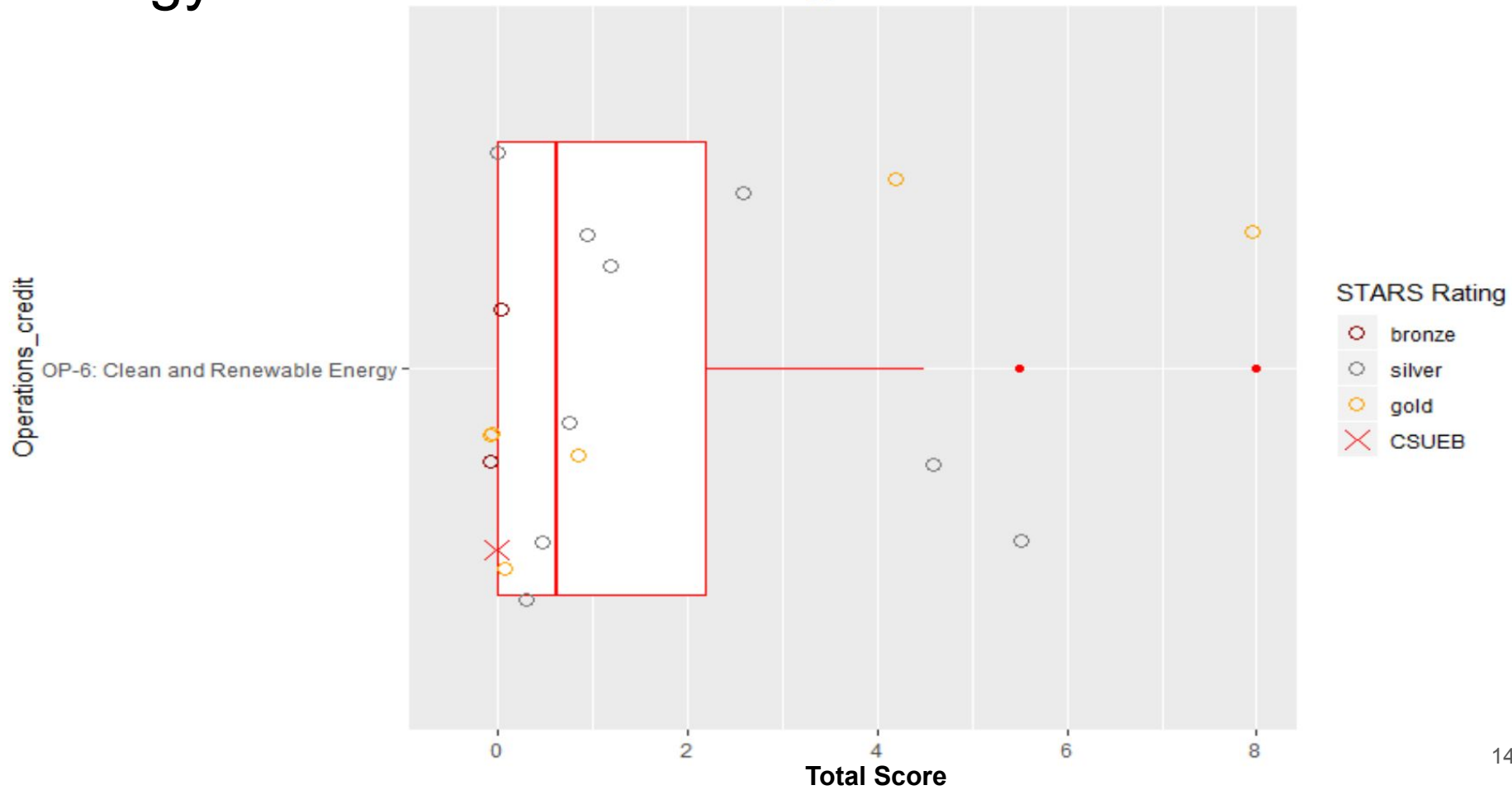
Emissions



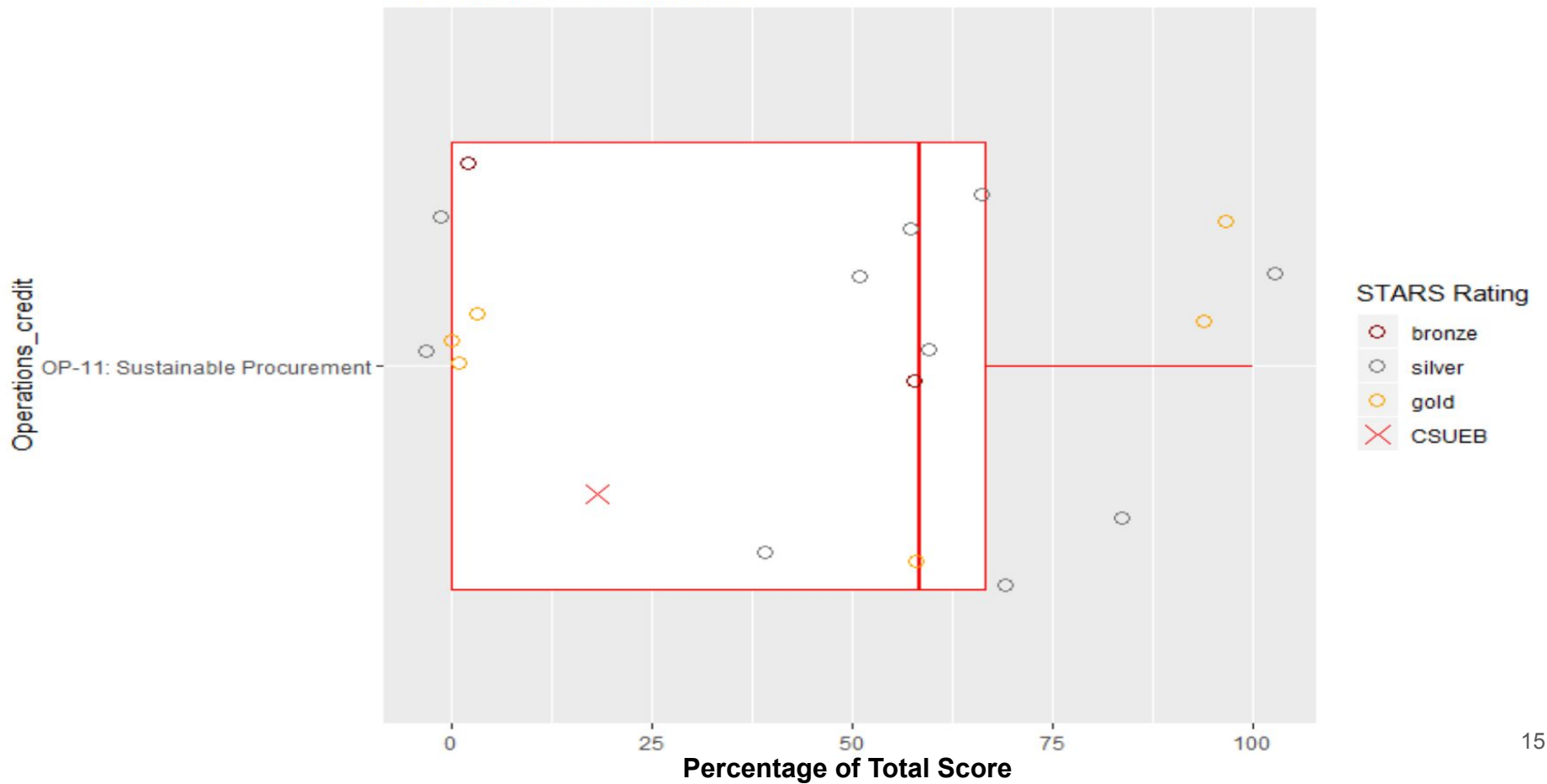
Buildings



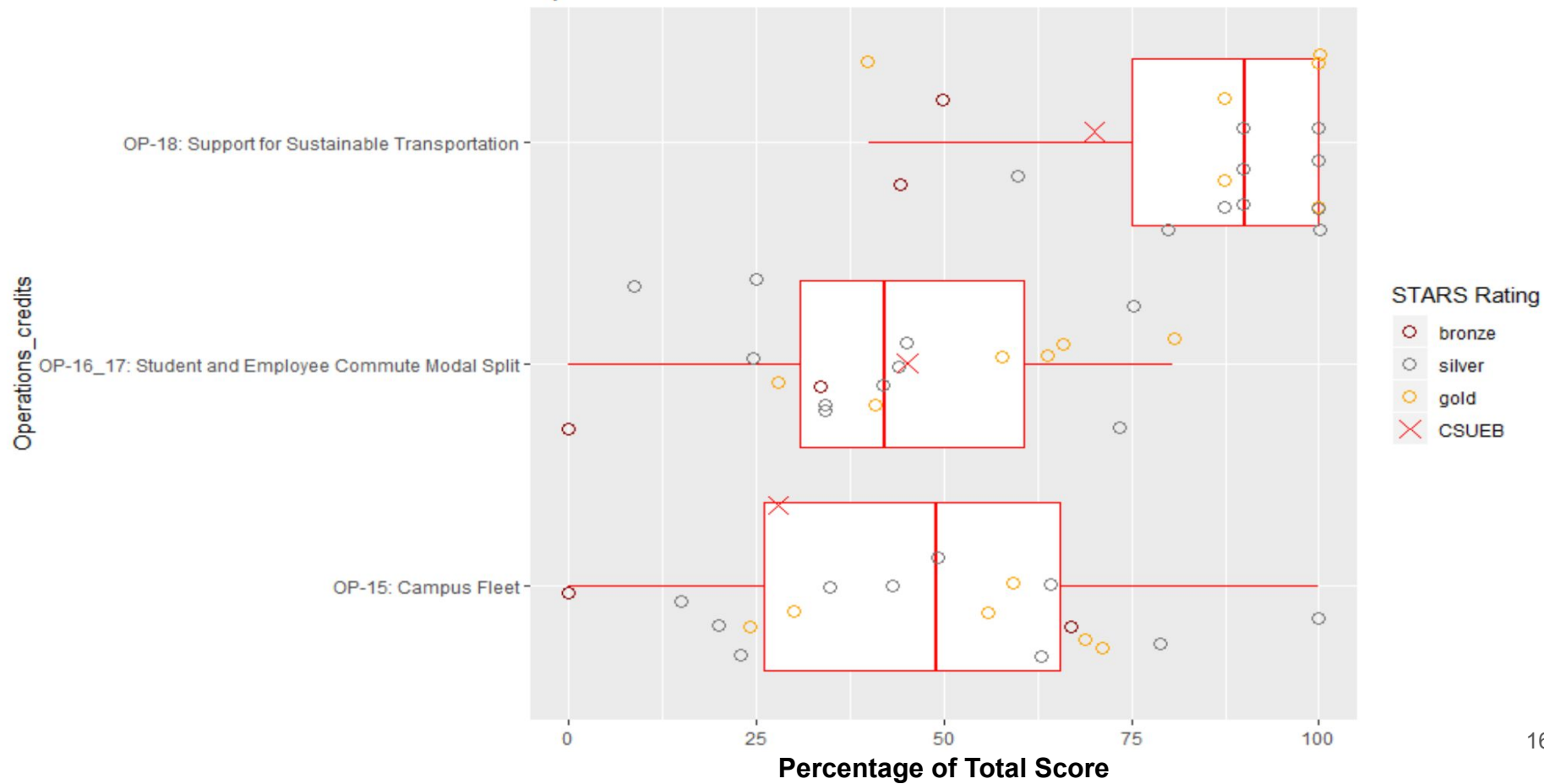
Energy



Procurement



Transportation



Decision Tree (Operations)

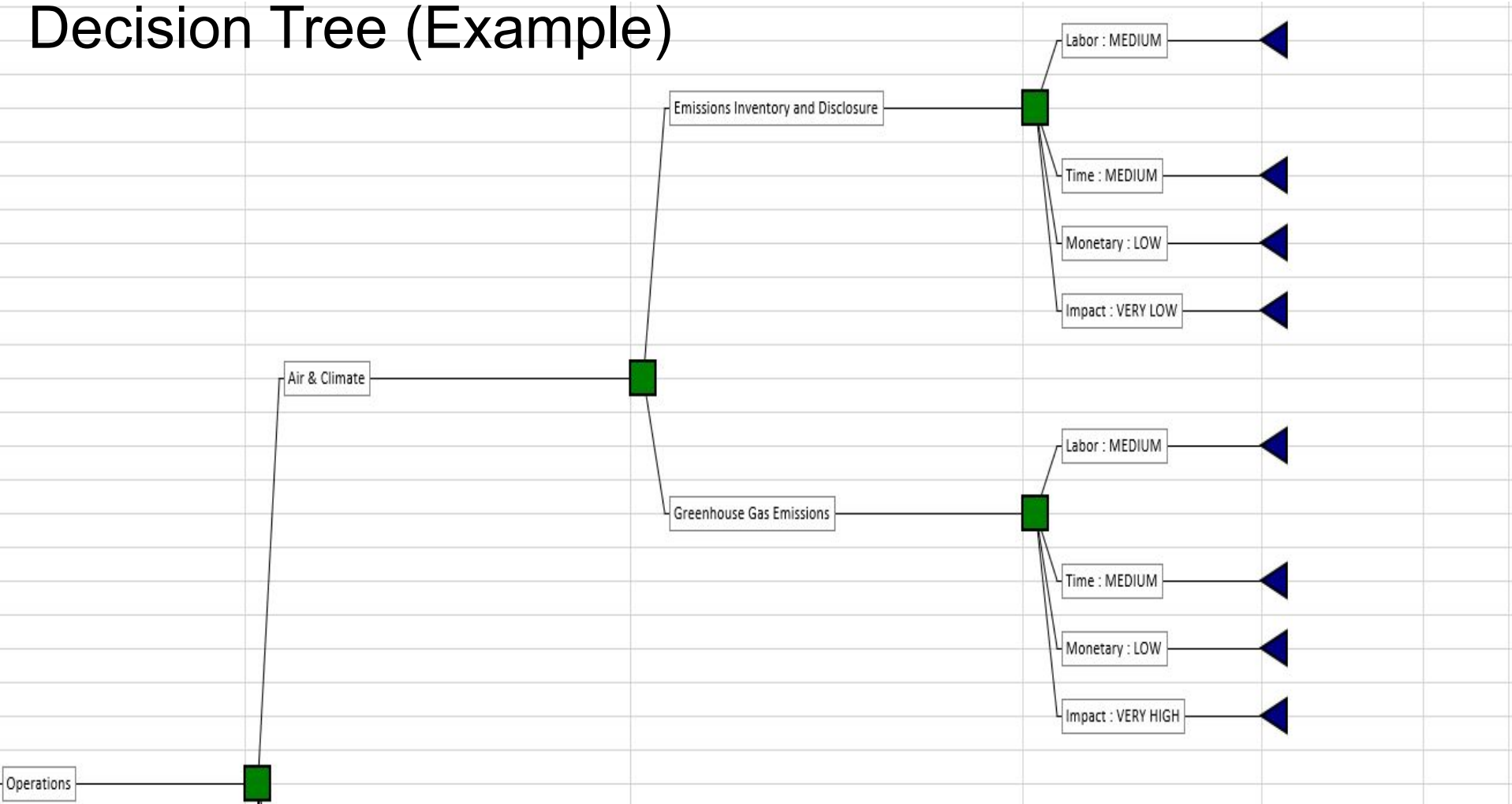
How do we prioritize among these 63 credits?

Each solution was rated based upon:

- Labor
- Time
- Initial Cost
- Impact on STARS rating and emissions



Decision Tree (Example)



Operations: Solutions

OP-1 Greenhouse Gas Emissions

Add solar PV to reduce emissions from nonrenewable resources.

OP-3 Building Operations and Maintenance

Add solar PV to lower building operation costs. Implement air quality, green cleaning, and energy management programs

OP-4 Building Design and Construction

Require all new building projects to be certified at LEED Gold or higher.

OP-5 Building Energy Efficiency

Add solar PV to improve overall building energy efficiency.



Operations: Solutions



OP-6 Clean and Renewable Energy

Add more renewables (wind, solar) to increase the percentage of clean energy

OP-11 Sustainable Procurement

Create policies and guidelines on sustainable procurement. Include:
Life Cycle Cost Analysis, Chemical Products, Construction & Renovation, Office Products, Furniture, IT, Food Service Providers, Garments, Service Providers, Transportation

Operations: Solutions



OP-15 Campus Fleet

Replace more campus-operated vehicles with electric vehicles (EV). Become certified as a NAFA Sustainable Accredited Fleet.

OP-16 / OP-17 Commute Modal Split

Incentivize students and employees to live near campus and take public transportation (such as covering AC Transit fares) or to use EVs.

OP-18 Support for Sustainable Transportation

Follow CAP step that discourages personal vehicles for first year residents

Priorities: Highest Impact for STARS & CAP

Energy

- Implement more solar and other renewable energy
- Convert heating from gas to electric in all buildings, especially in resident halls

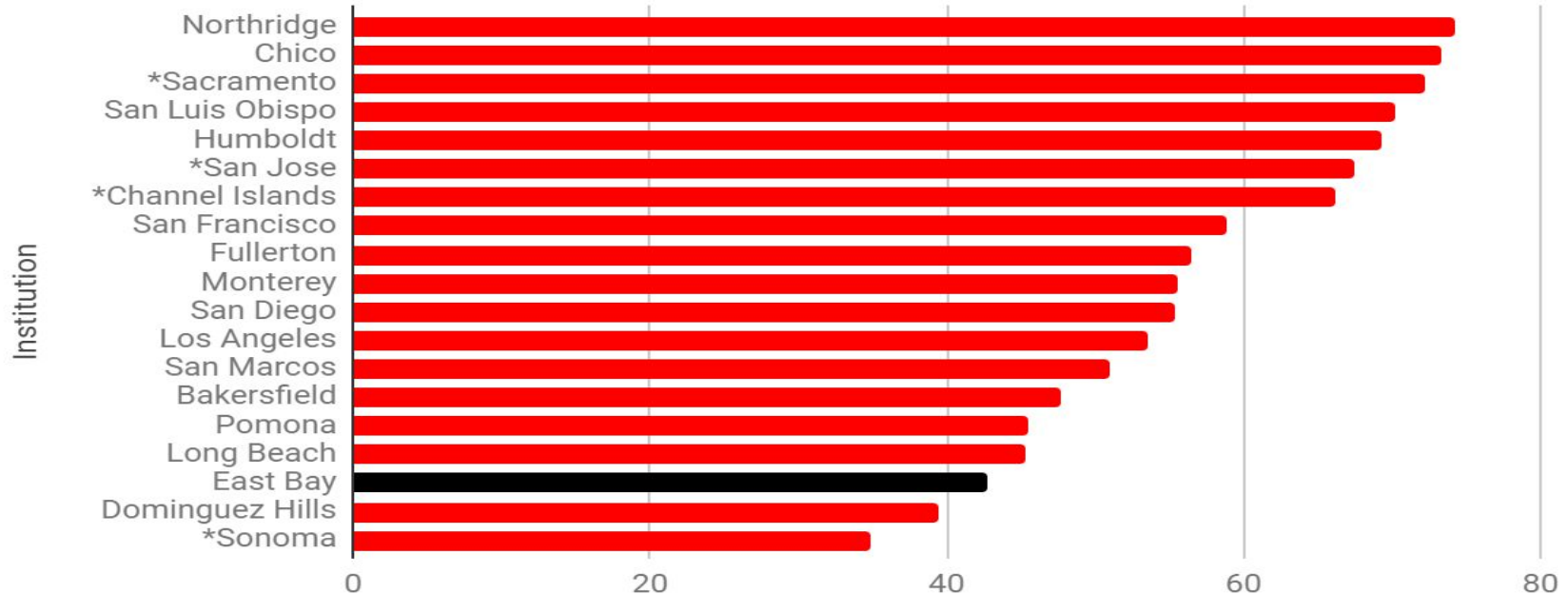
Transportation

- Subsidize Public Transport
- Increase EV Parking space count
- Discourage first year resident parking permits



After attaining all points in *only* these 10 Credits:

STARS Overall Points



* Expired certification
as of November 2019

Points

Thank you!

Any Questions?



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S U S T A I N A B I L I T Y

CAP-IT Report Out

Dr. Karina Garbesi

Time Certain: 2:40pm

Zero Waste Task Force Report Out

- SF Building zero waste project
 - Starting on 3rd floor, moving throughout building
 - Will expand to buildings under same Custodial Lead
 - SF, AE, Robinson Hall, and Theater
 - Collaboration among Office of Sustainability, Custodial Coordinators, SF occupants

Discussion

Presidential Forum Priorities

New Member: Director of Parking & Transport Services or Designee

Next Meeting

Friday, April 10

2pm - 3:30pm

SF 329



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Initial Benchmark Assessment

Prepared by:

Rahul Garg

Ankur Bhagwat

Jonathan Tonel



STARS v2.1

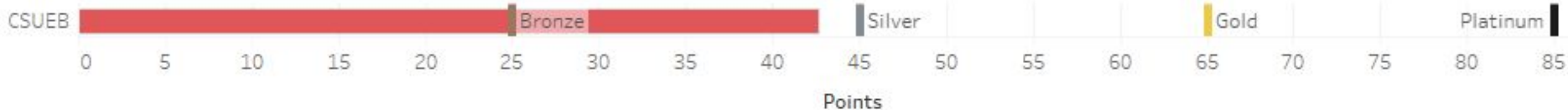
California State University, East Bay

Hayward, CA, US

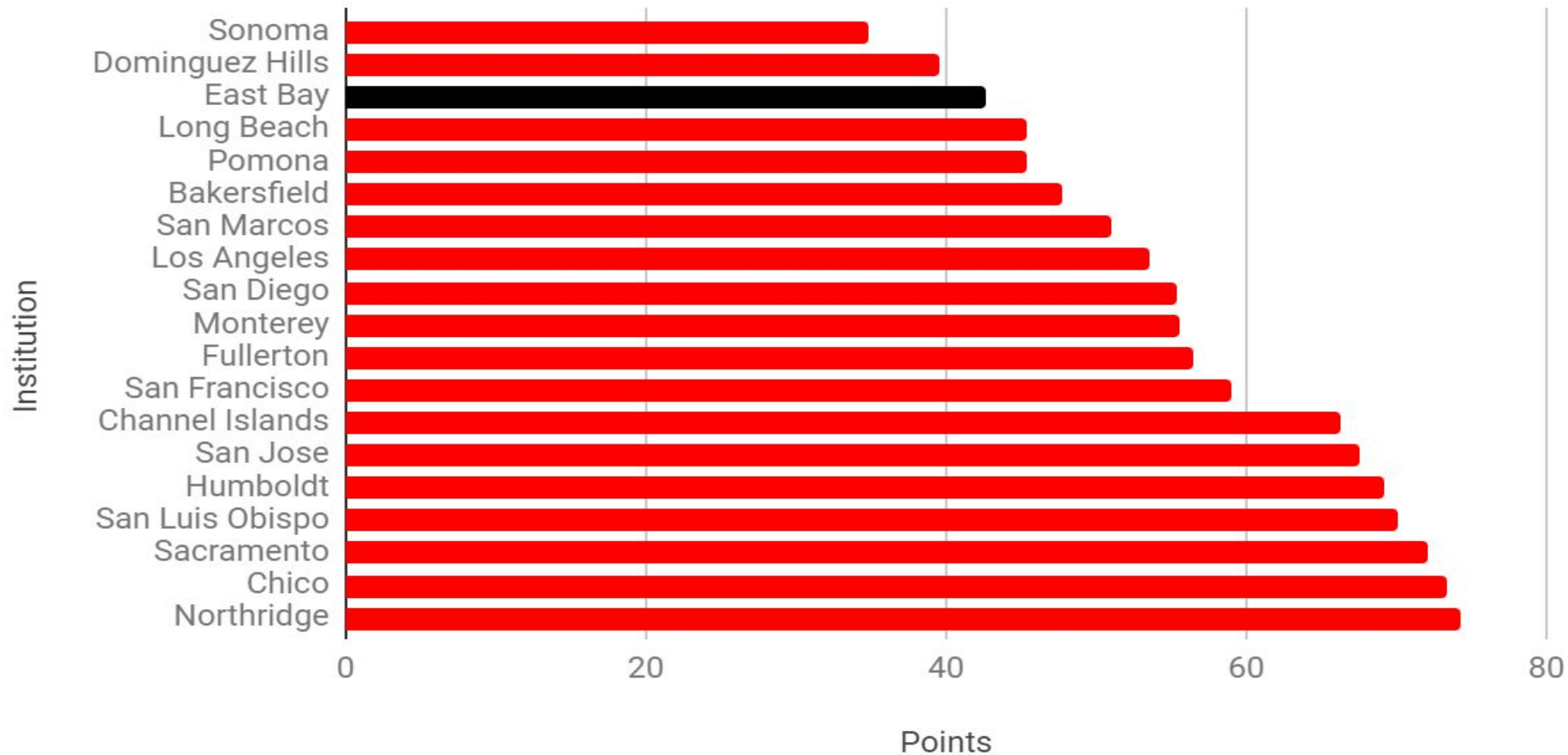
Rating	Score	Liaison	Submission Date	Executive Letter	Export
Bronze	42.65	Jillian Buckholz	April 19, 2019	Download	Download

Institutional Characteristics

[Institutional Characteristics](#) +



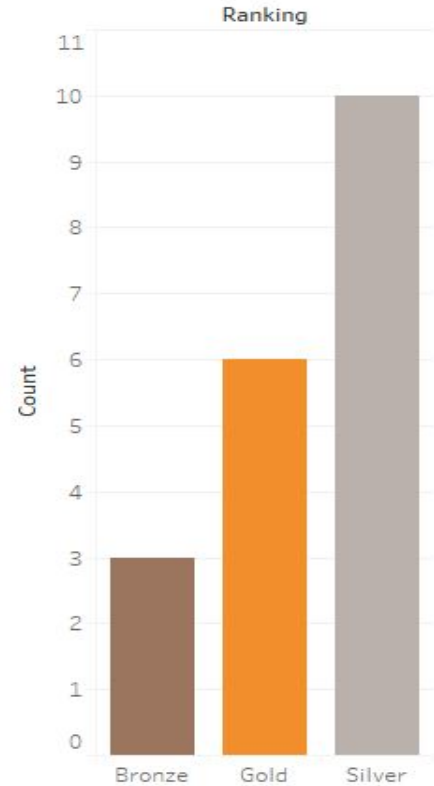
STARS Overall Points

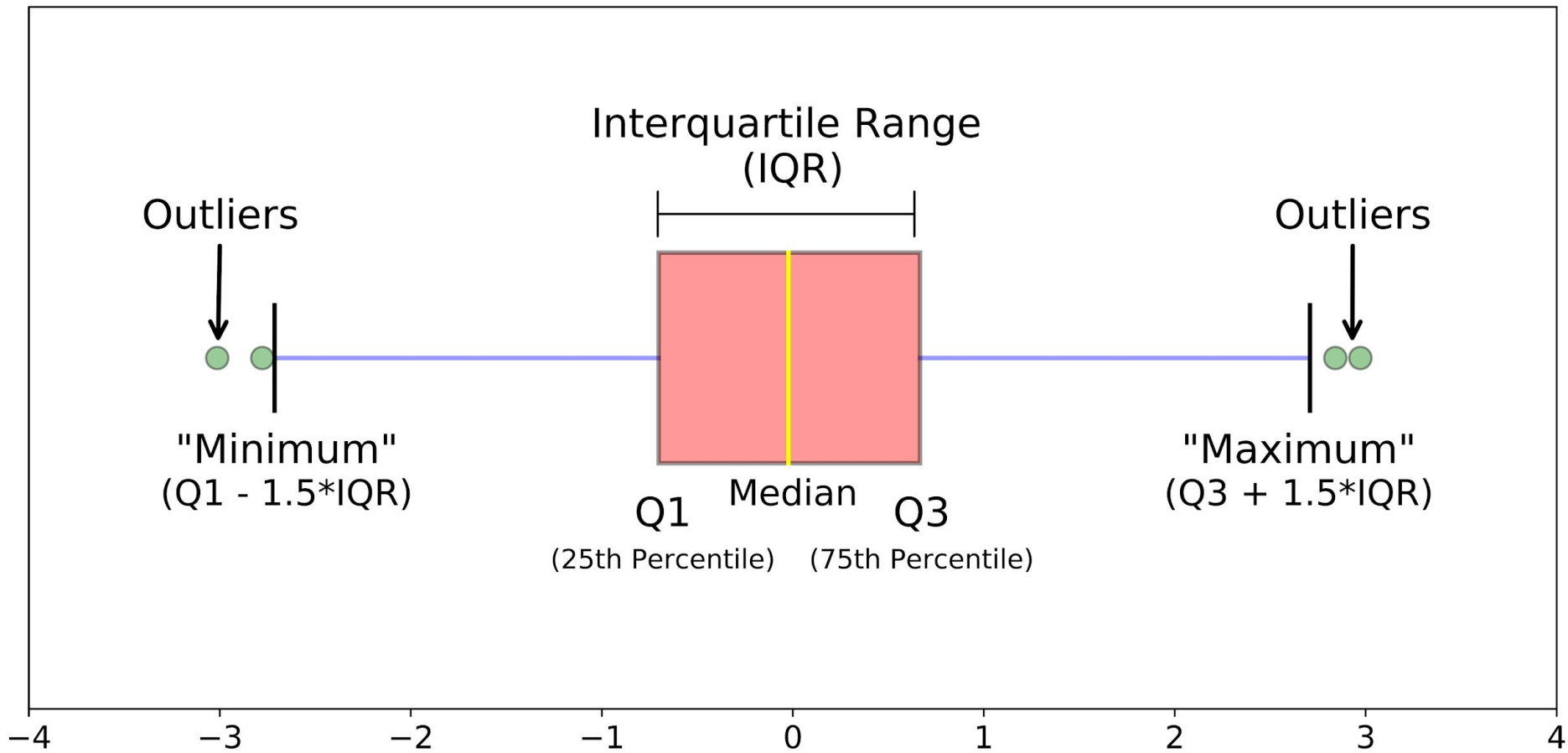


Comparison to CSU System

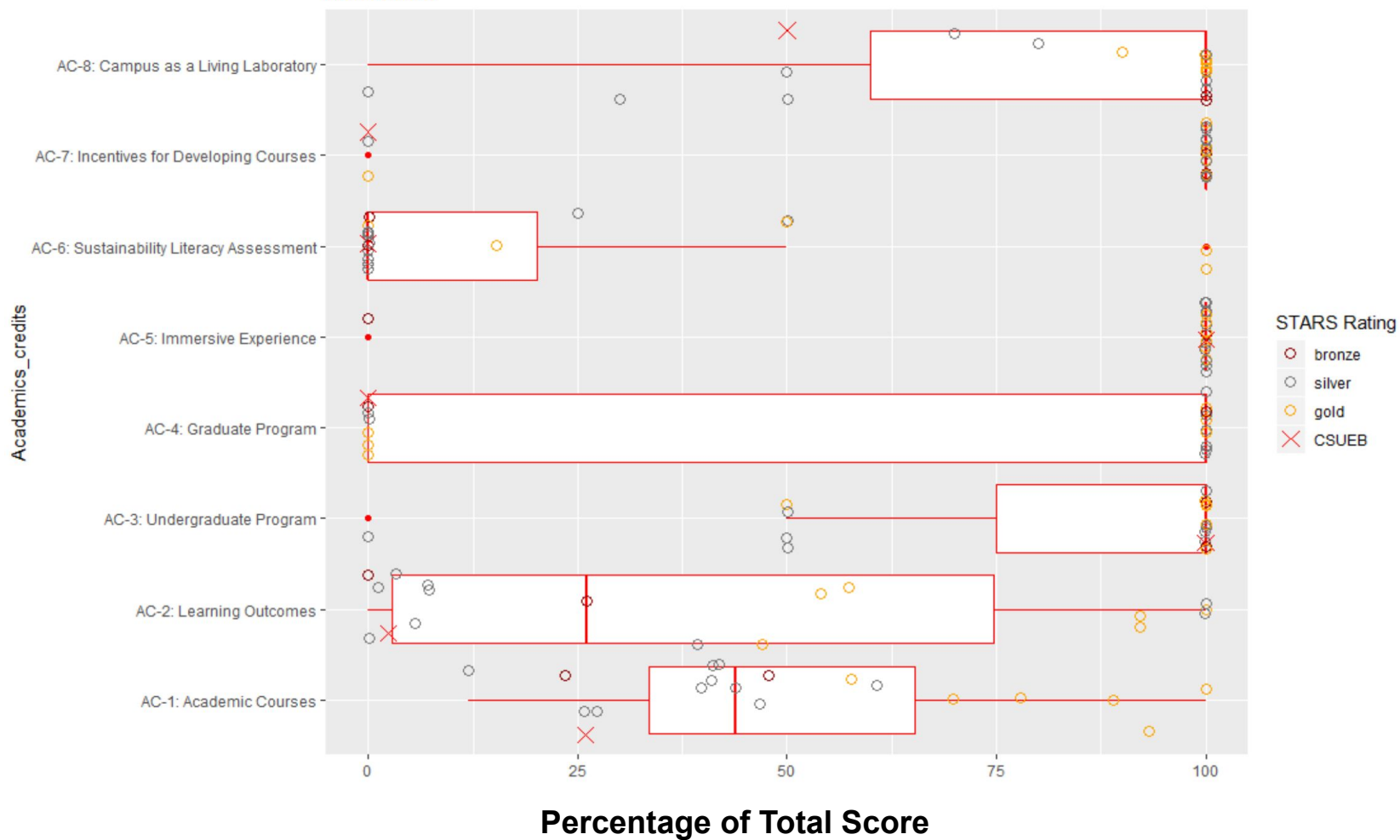
- We are in the bottom 19% for CSU Campuses that have been certified for STARS
- Using R Statistical Software, we can see what the other 18 campuses are doing well in. We can also see what CSUEB is doing well in to be as a model for other CSUs
- What has the most impact on meeting our emissions goals?
- We narrowed down the list from 63 to 24

STARS Rankings

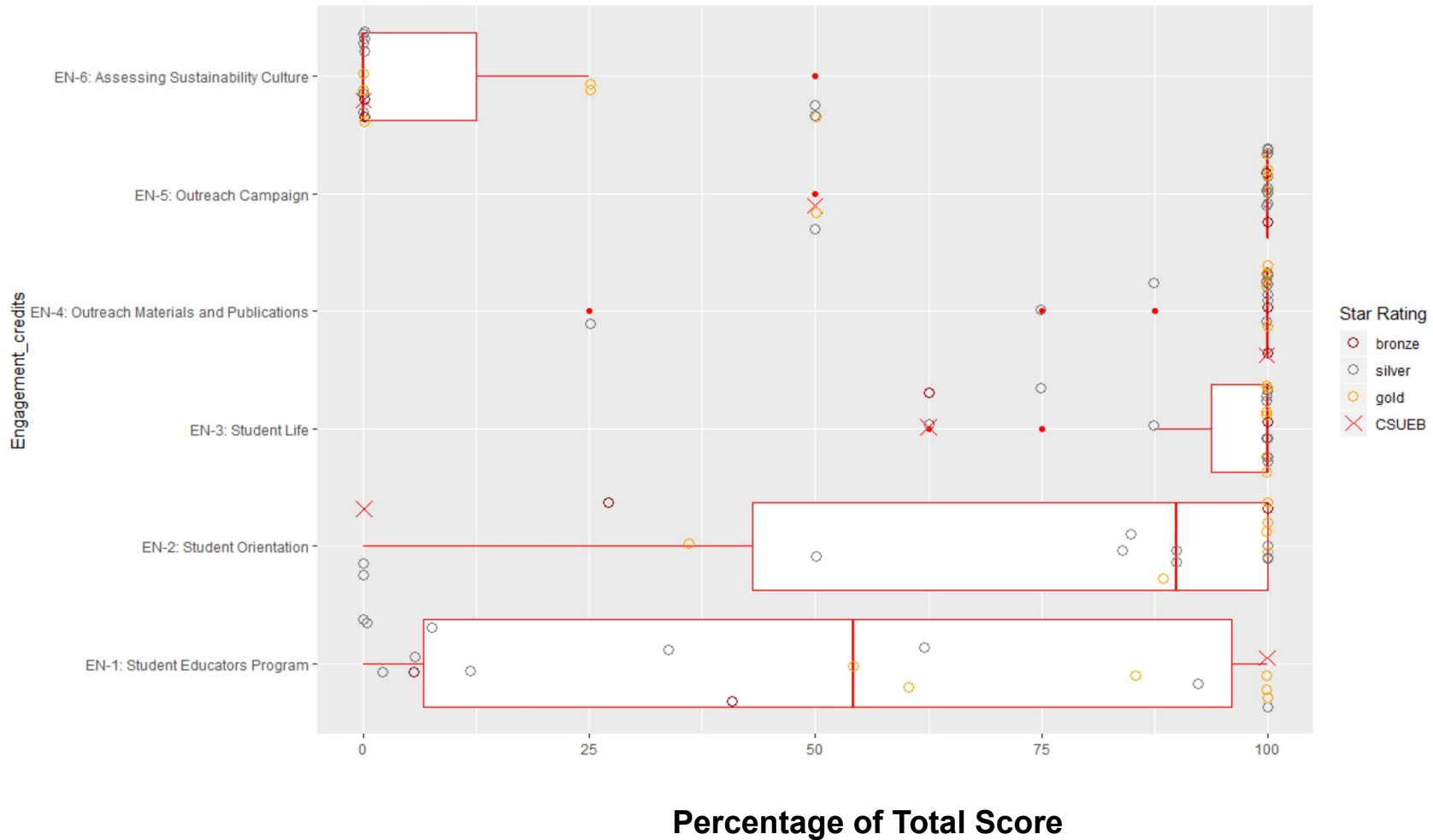




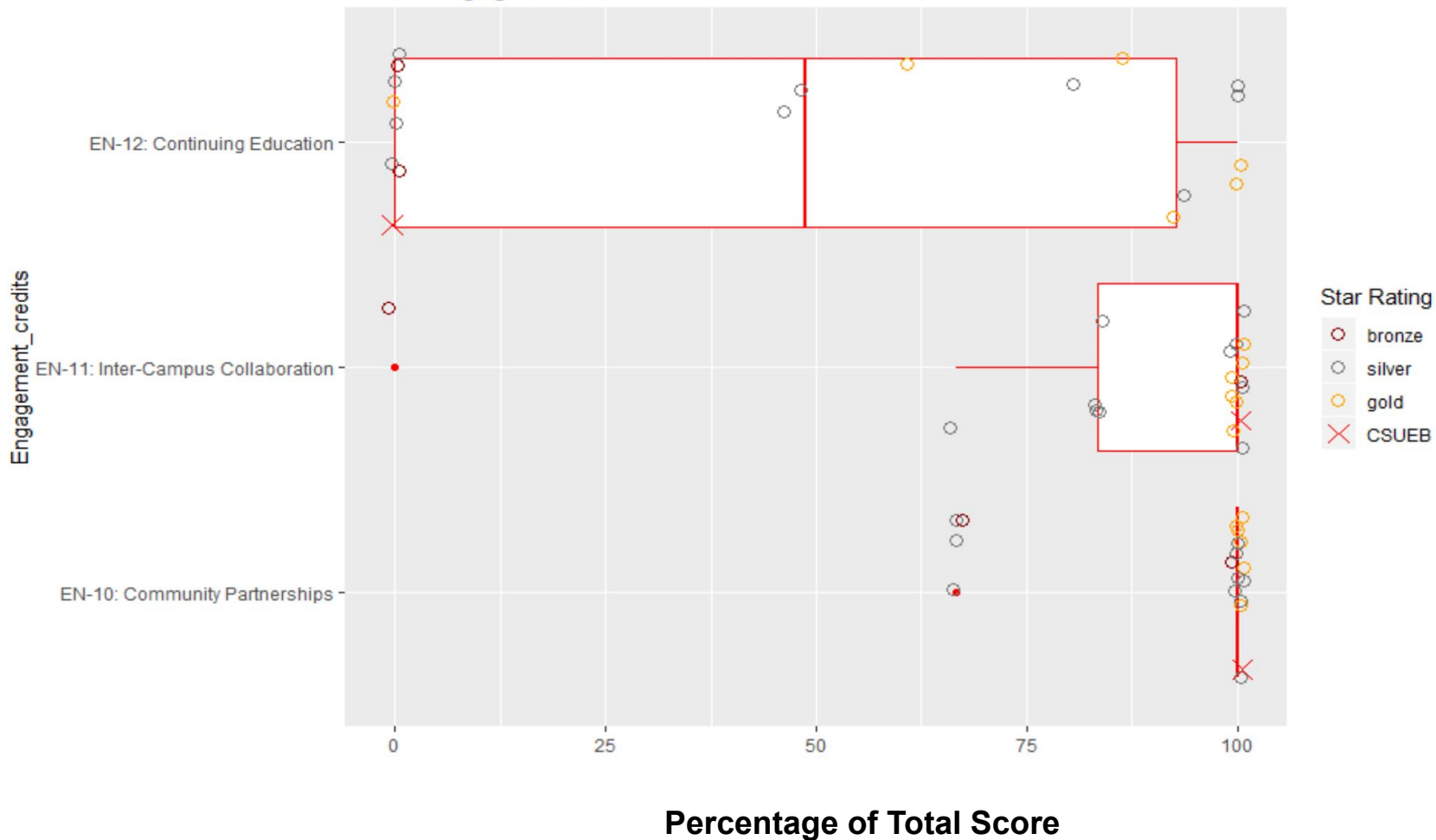
Academics



Campus Engagement



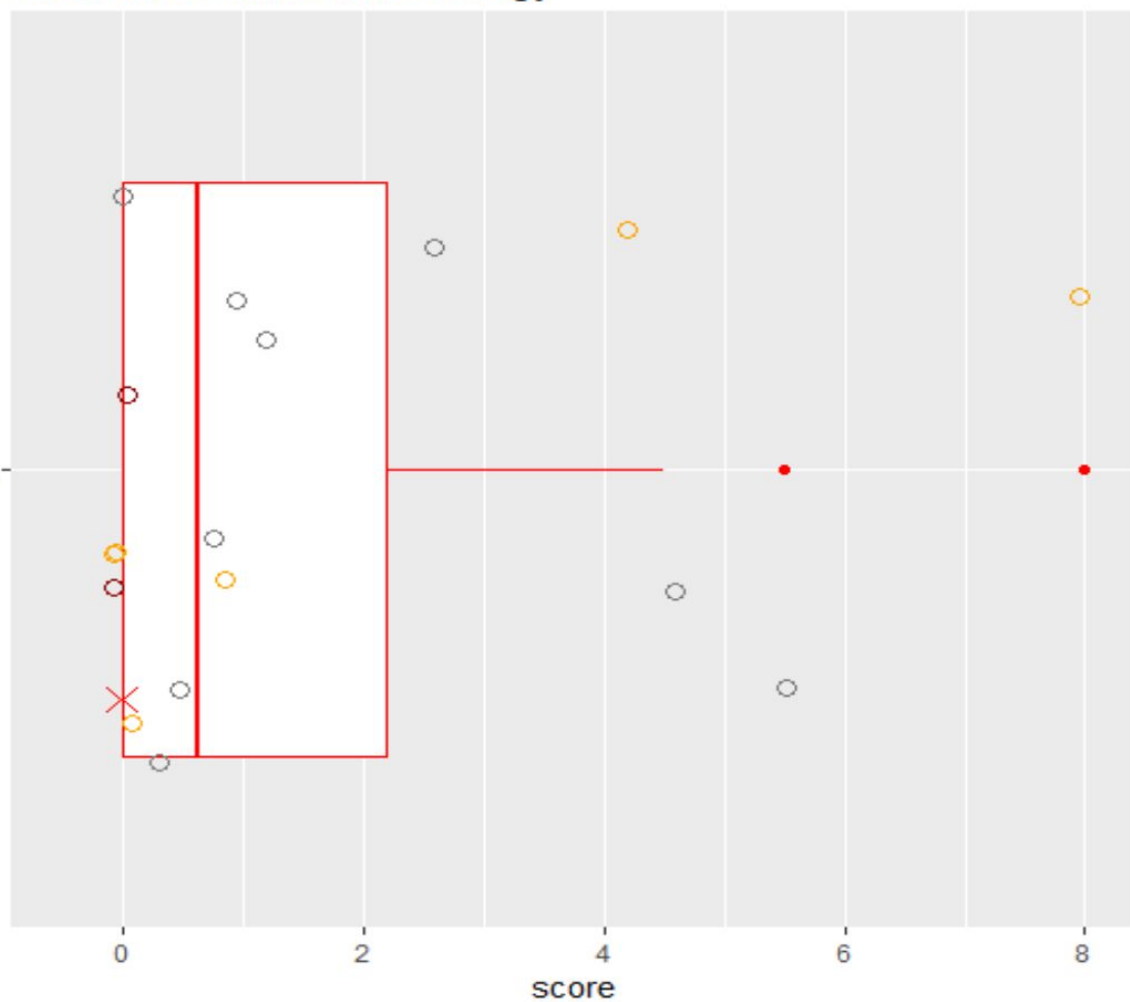
Public Engagement



Clean and Renewable Energy

Operations_credit

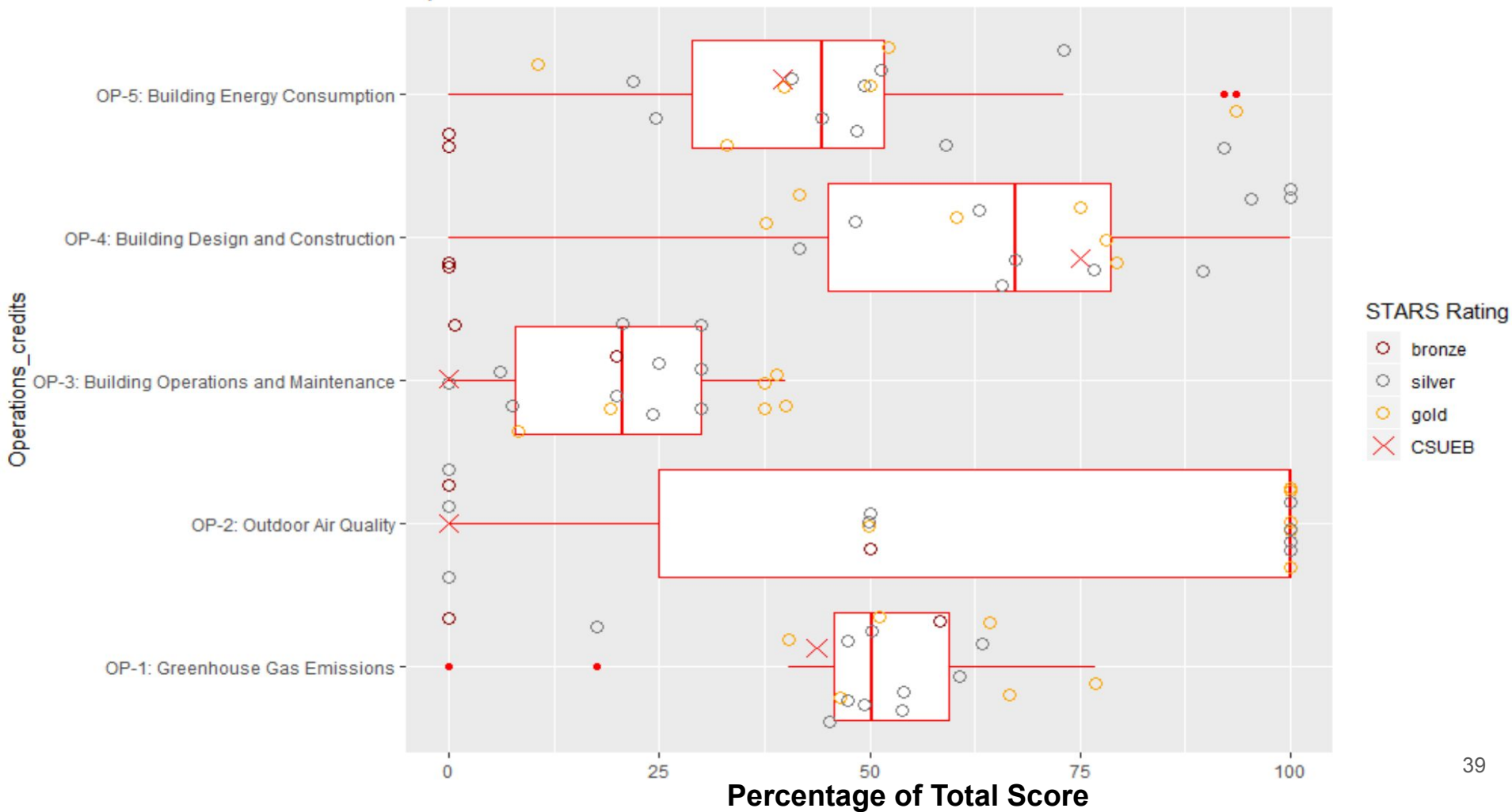
OP-6: Clean and Renewable Energy



STARS Rating

- bronze
- silver
- gold
- × CSUEB

Operations



Operations

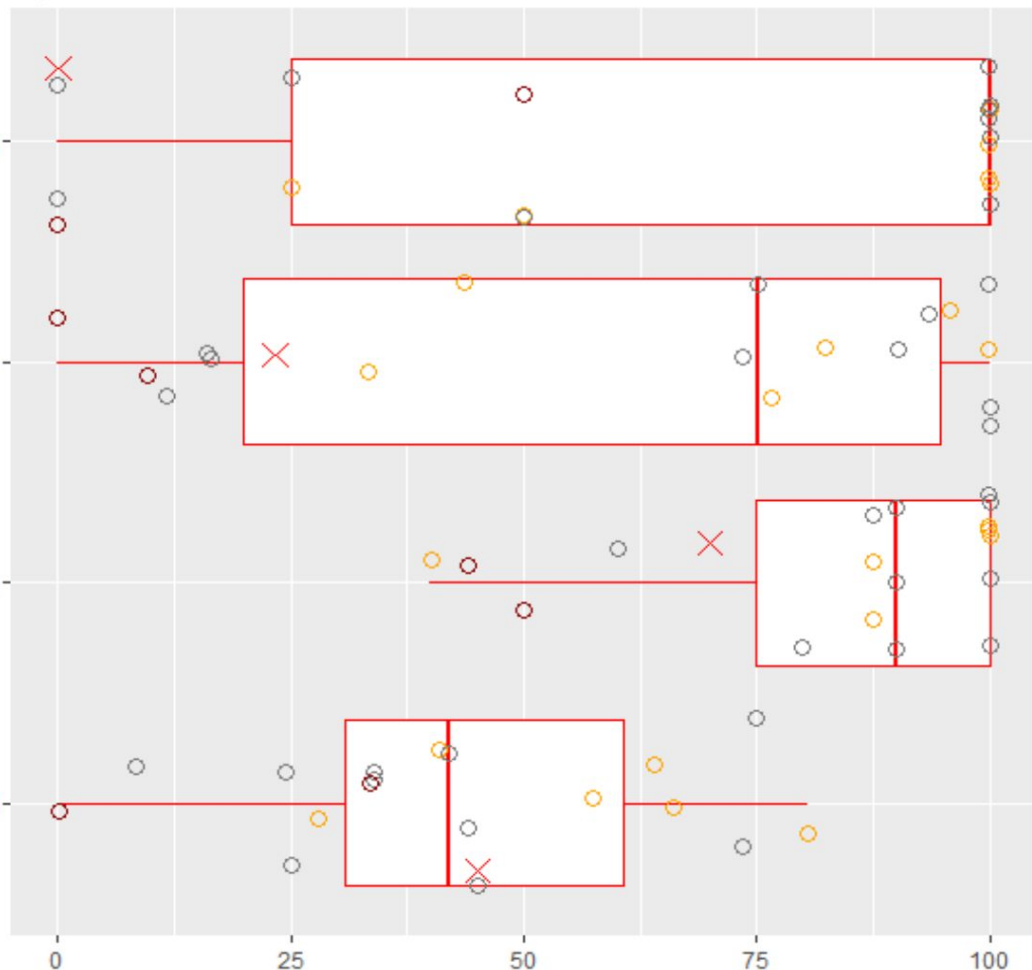
Operations_credits

OP-23: Rainwater Management

OP-22: Water Use

OP-18: Support for Sustainable Transportation

OP-16_17: Student and Employee Commute Modal Split

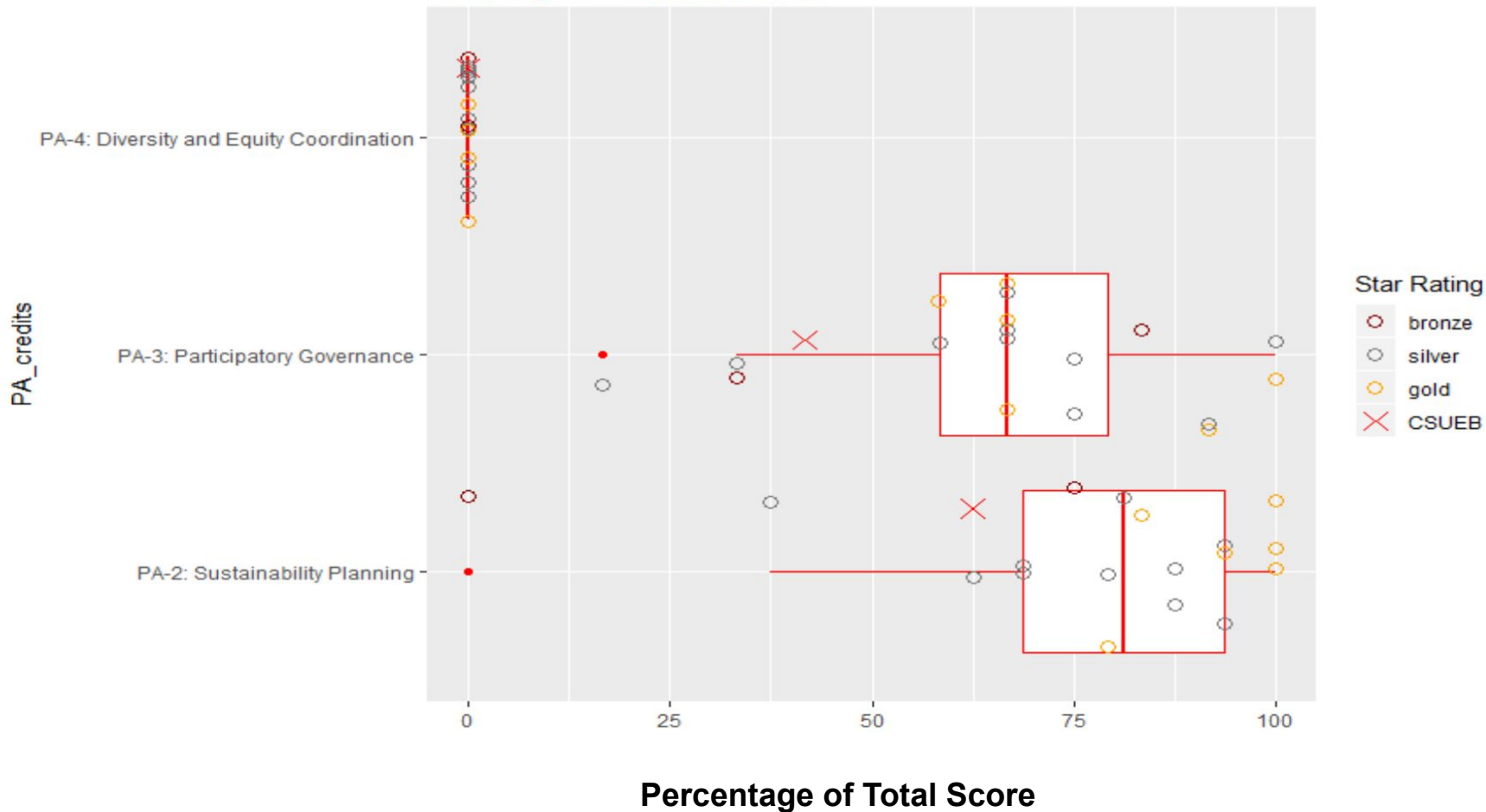


STARS Rating

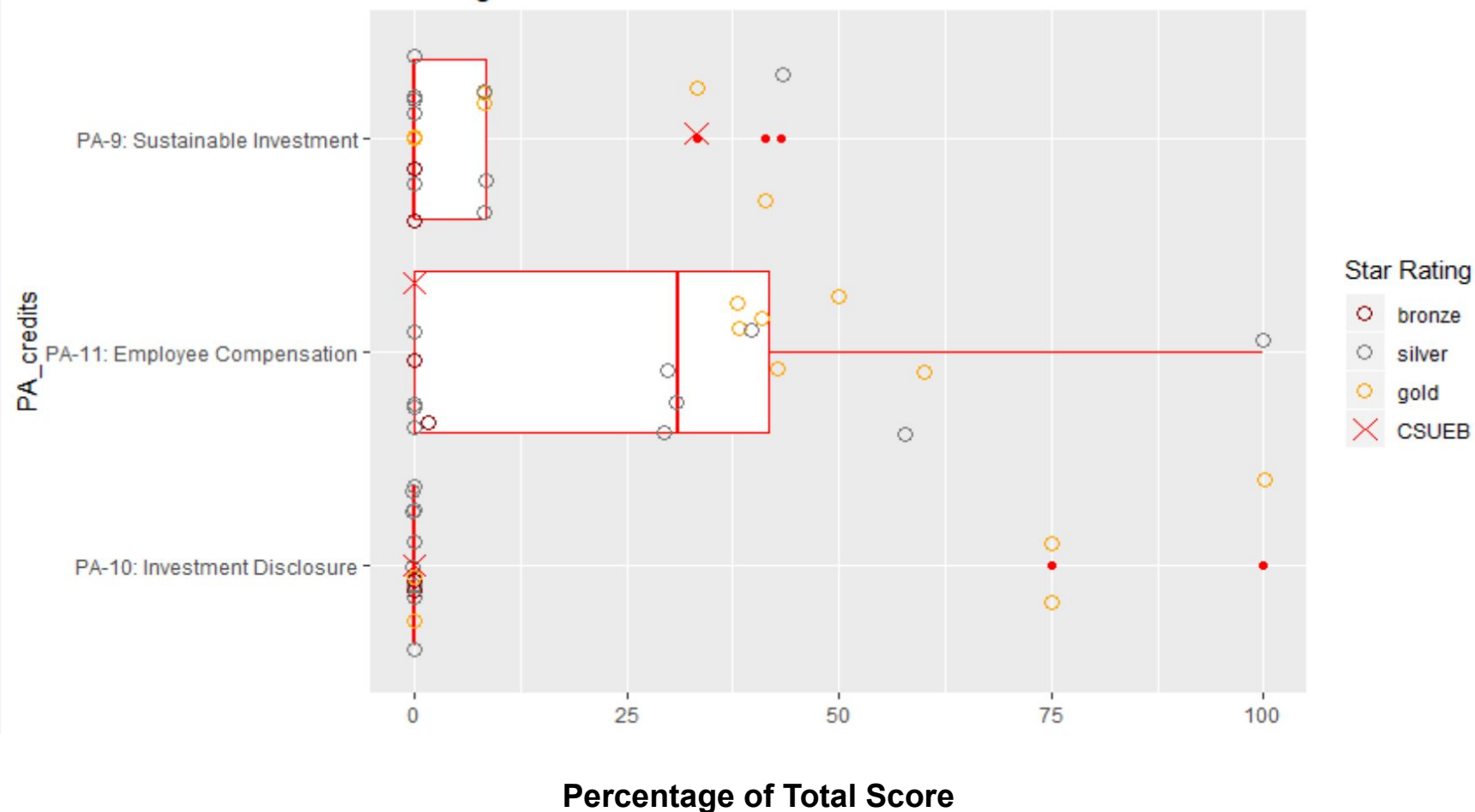
- bronze
- silver
- gold
- CSUEB

Percentage of Total Score

Planning and Administration



Planning and Administration



Decision Tree

Campus Engagement

Student Orientation

Employee Educators Program

Labor : LOW

Time : VERY LOW

Monetary : VERY LOW

Impact : LOW

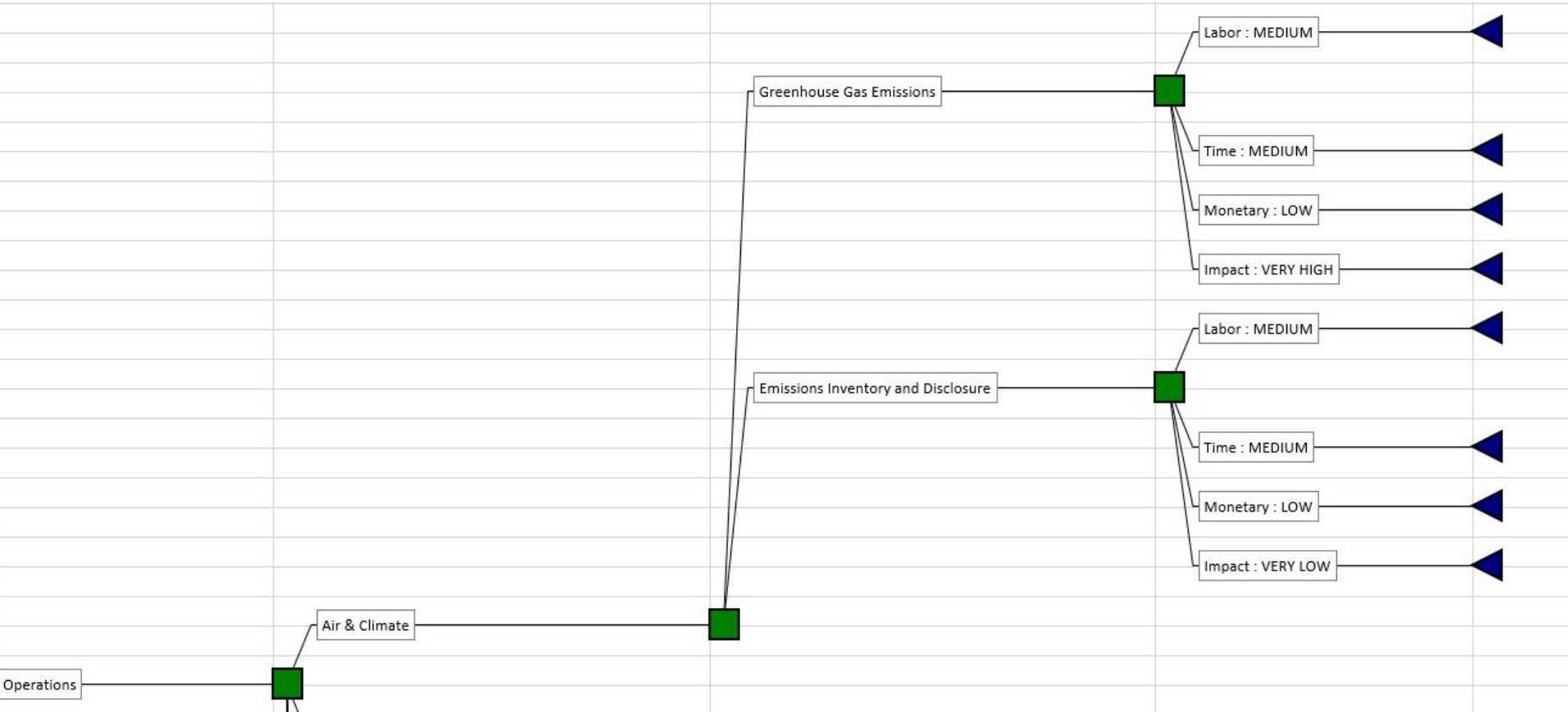
Labor : Medium

Time : LOW

Monetary : VERY LOW

Impact : MEDIUM

Decision Tree



Academics: Solutions

Academic Courses

Add more sustainability courses (can be program specific or open to all majors)

Learning Outcomes

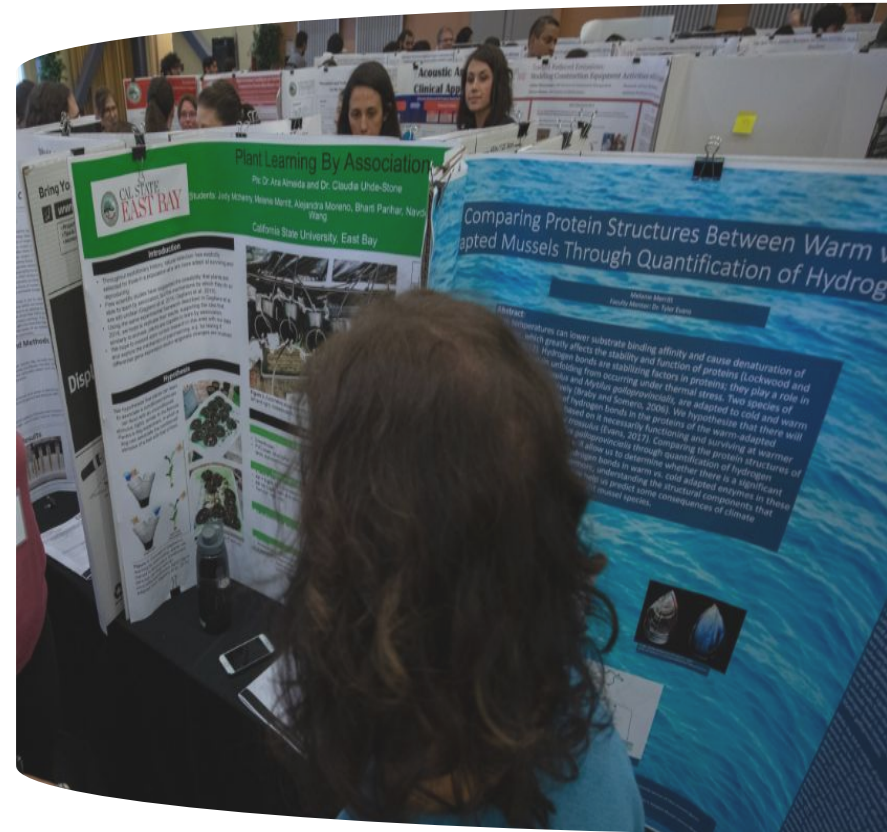
Add sustainability learning outcomes to all colleges (only College of Business & Economics has one).

Graduate Program

Add a graduate program related to sustainability



Academics: Solutions



Sustainability Literacy Assessment

Survey students before and after a Sustainability Overlay course on their understanding of sustainability topics

Incentives for Developing Courses

Create a grant for faculty that integrate sustainability into courses. Provide resources material for them as well.

Campus as a Living Laboratory

Campus composting / community garden program that courses can use to teach students. Integrate energy, water, and waste audits into relevant courses

Engagement: Solutions

Student Orientation

Have Sustainability Ambassadors (SA) integrate a short lesson in Orientation Day and tours

Student Life

Start a campus garden

Cultural arts events, installations or performances focused on sustainability

Outreach Campaign

Have an outreach campaign directed at employees.

Assessing Sustainability Culture

Conduct a survey that gauges interest, understanding, awareness, and participation in sustainability as a whole and a campus.



Engagement: Solutions



Employee Educators Program

Create a peer-to-peer sustainability outreach and education program for employees.

Continuing Education

Add more programs and/or courses on sustainability to the Continuing Education curriculum

Participation in Public Policy

Engage in public policy by having CSUEB employees join Keep Hayward Clean and Green Task Force

Trademark Licensing

Register with the Fair Trade Association

Operations: Solutions

Greenhouse Gas Emissions

Complete the Solar IV Program to reduce emissions from nonrenewable resources.

Emissions, Inventory & Disclosure

Complete the Solar IV Program to reduce emissions from nonrenewable resources.

Building Operations and Maintenance

Complete the Solar IV Program to lower building operation costs. Can also implement solar water heating into existing buildings.

Building Energy Efficiency

Complete the Solar IV Program to improve overall building energy efficiency,.

Clean and Renewable Energy

Complete the Solar IV[7] Program to increase the percentage of clean energy used by the campus.



Operations: Solutions



Support for Sustainable Transportation

Incentivize employees to live near campus, take public transportation (such as covering AC Transit fares), or to use electric vehicles (increasing parking spaces for EVs, lowering permit costs).

Water Use

Reduce the amount of lawn on campus by converting excess lawn to areas for less maintenance intensive plants. Can create a campus-wide Adopt A Tree program to offset costs.

Rainwater Management

Install a rainwater management system (rain harvest system, rain gardens, and implementing watershed processes to filter stormwater runoff).

Planning & Administration: Solutions

Sustainability Planning

Complete the Campus Master Plan

Inclusive & Participatory Governance

Create written policies to identify and engage external stakeholders in land use planning and other institutional decisions that affect the community.

Diversity and Equity Coordination

Increase attendance of students, staff, and faculty at cultural competence trainings or events.

Committee on Investor Responsibility

Have a formally established and active committee on investor responsibility (CIR) or equivalent body that makes recommendations to fund decision-makers on socially and environmentally responsible investment opportunities.



Priorities: Highest Impact, Lowest Cost

1. Implement Solar IV
2. Partner with AC Transit for free transit for CSUEB students.
3. Reduce water use through installation of artificial turf, converting more open lawns to drought tolerant gardens, and starting the process of rainwater management
4. Integrate sustainability into Orientation Week, tours, and events
5. Add sustainability learning outcomes to as many colleges, majors, and courses as possible



Thank you!

Any Questions?



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EAST BAY

S U S T A I N A B I L I T Y